

Project MATCH

**Matching Alcohol Treatments to
Client Heterogeneity**

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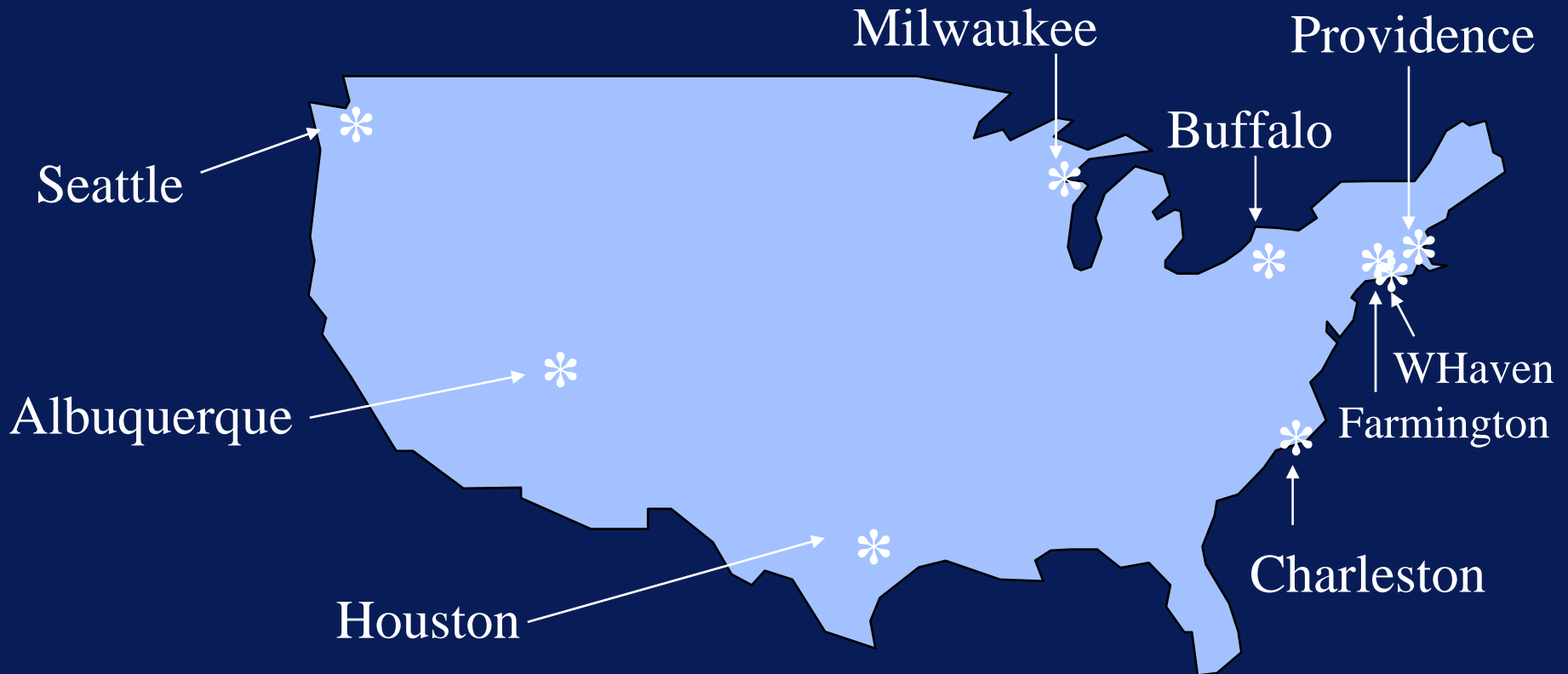
Principal Investigators/ Co-I's



The Project MATCH Research Group (PMRG)

Clinical Research Units

Project MATCH



Purpose of Project MATCH

To determine if various types of alcoholics respond differentially to different treatment approaches

Limitations of Prior Alcohol Treatment Matching Studies

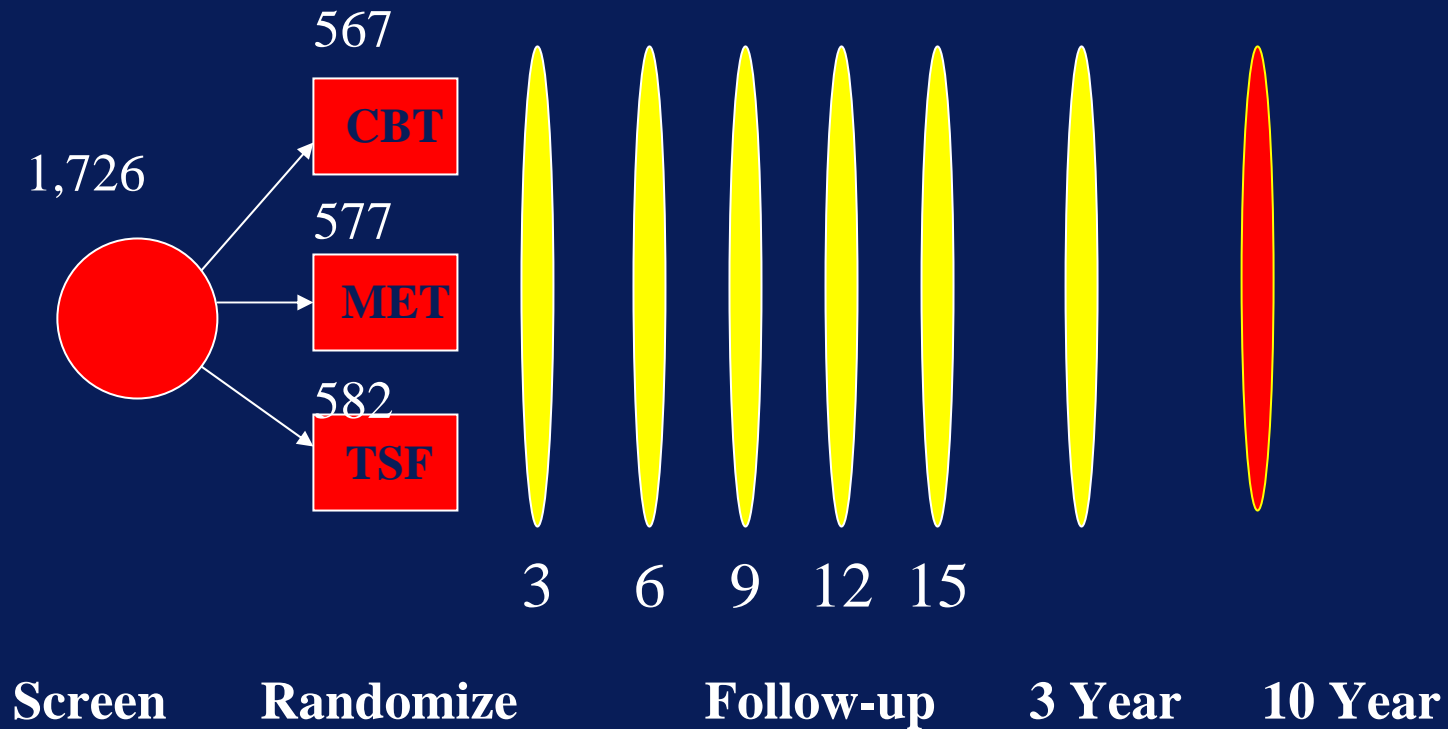
1. Lack of statistical power
2. Single site studies
3. Lacking a priori hypotheses

Two Parallel Study Arms

To test the generalizability of
matching in different client
populations and treatment settings

- Outpatient
- Aftercare

Project MATCH Design



Treatment Selection Criteria

1. Documentation of clinical effectiveness
2. Potential for revealing matching effects
3. Applicability to existing treatment system
4. Distinctiveness from other MATCH treatments
5. Feasibility of implementation in clinical trial

Cognitive Behavioral Therapy

Based on social learning theory

12 sessions/12 weeks

To provide skills training for:

- managing thoughts about alcohol
- assessing high risk situations
- coping with urges
- refusing drinks
- handling emergency situations
- avoiding relapse

Motivational Enhancement Therapy

Based on principles of motivational psychology

4 sessions/12 weeks

designed to:

- provide structured feedback about alcohol-related problems
- motivate commitment to change
- promote individual responsibility
- mobilize personal resources

Twelve Step Facilitation

Based on principles of Alcoholics

Anonymous

12 sessions in 12 weeks designed to:

- introduce the first three steps of AA
- promote active participation in AA

Therapist Selection Criteria

- Masters level or CAC
- Commitment to CBT, MET, or TSF Approach
- At least 2 years experience

Therapist Training

- Centralized at coordinating center
- Didactic seminar
- Two supervised training cases
- Ongoing supervision of 1/4 of all sessions

Intake Assessment (8 hours)

Quick Screen

(basic eligibility)

Diagnostic Evaluation

(alcohol dependence, symptom severity)

Pretreatment Evaluation

(alcohol/drug treatment history)

Randomization

Psychological Evaluation

(psychopathology)

Patient Measures

- Psychopathology
- Alcohol Involvement/Severity of Dependence
- Motivation
- Personality
- Neuropsychological Functioning
- Social Support

Matching Variables

- Alcohol involvement
- Cognitive impairment
- Conceptual level
- Gender
- Meaning seeking
- Motivational readiness to change
- Psychiatric severity
- Social support for drinking
- Sociopathy
- Alcoholic subtype

Outcome Variables

Primary Measures

- (From the Form 90 Drinking Calendar)
- Percent of Days Abstinent (frequency)
- Drinks per Drinking Day (intensity)

Secondary Measures (Partial list)

- Other measures of drinking
- Negative consequences of drinking
- Other substance use
- Social functioning
- Psychological functioning

Sample

Inclusion/Exclusion Criteria (1)

Inclusion criteria: both study arms

1. Current DSM-III-R diagnosis of alcohol abuse or dependence
2. Alcohol the principal drug of abuse
3. Active drinking in the three months prior to study entry
4. Minimum age of 18
5. Minimum sixth grade reading level

Urn Randomization Worked

Treatment Groups Were Equivalent at Baseline on:

Age

Gender

Ethnicity

Years of Education

Relationship Status

Employment Status

Prior Alcohol Treatment

Psychiatric Severity (ASI)

Alcohol Dependence Symptoms (SCID)

Characteristics at Baseline

	Outpatient	Aftercare
Percent Female	27.7%	20.0%
Mean Age	38.9	41.9
Mean Years of Education	13.4	13.1
Employed Full Time (%)	51.0%	47.8%
Percent Married	35.8%	33.7%
Number of Participants	952	774

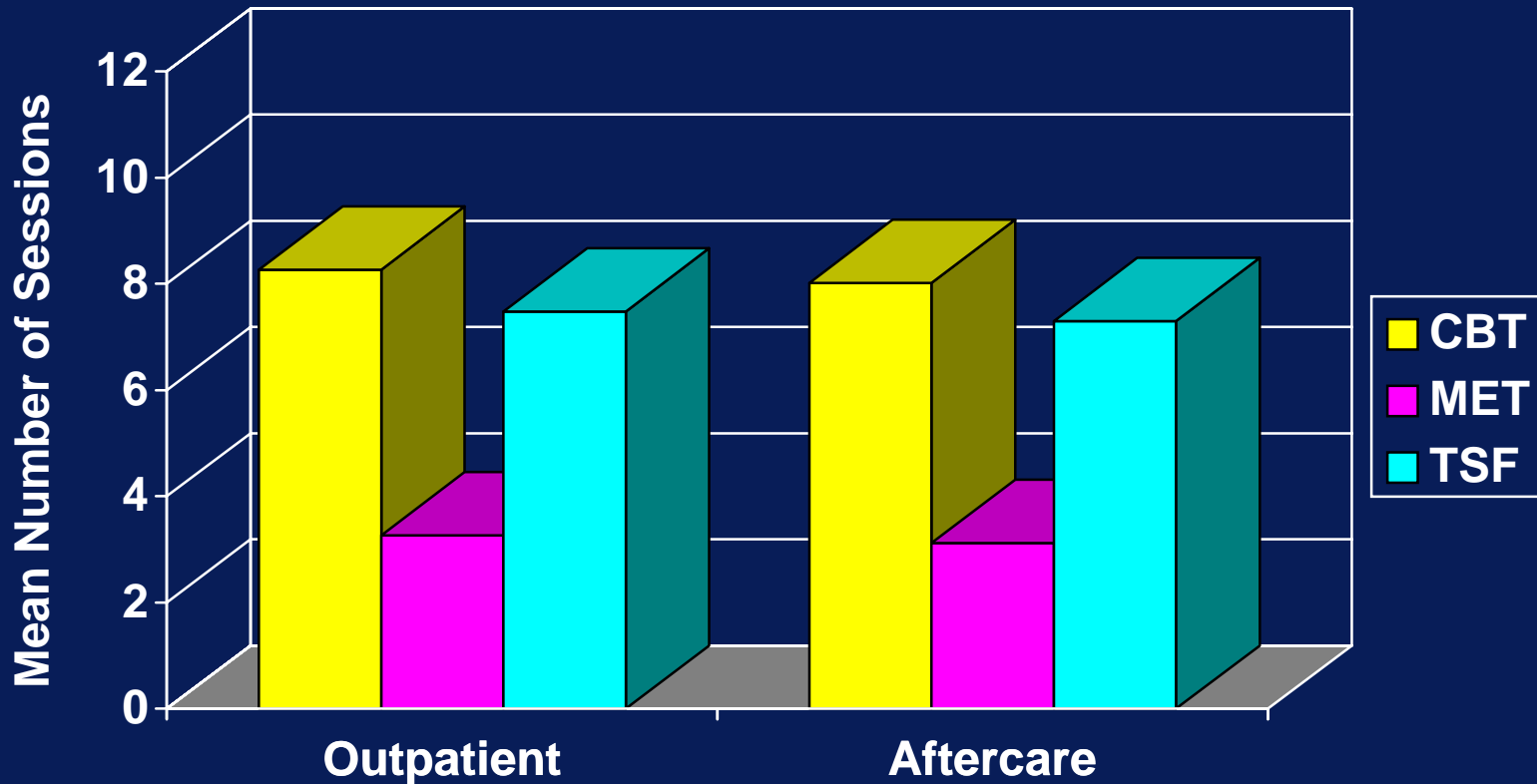
Alcohol Impairment at Baseline

	Outpatient	Aftercare
Percent of Days Abstinent	34.3	26.8
Drinks per Drinking Day	13.5	20.5
No. of SCID Symptoms	5.77	6.79
Prior IP Alcohol Treatment	45.0%	58.3%
Number of Participants	952	774

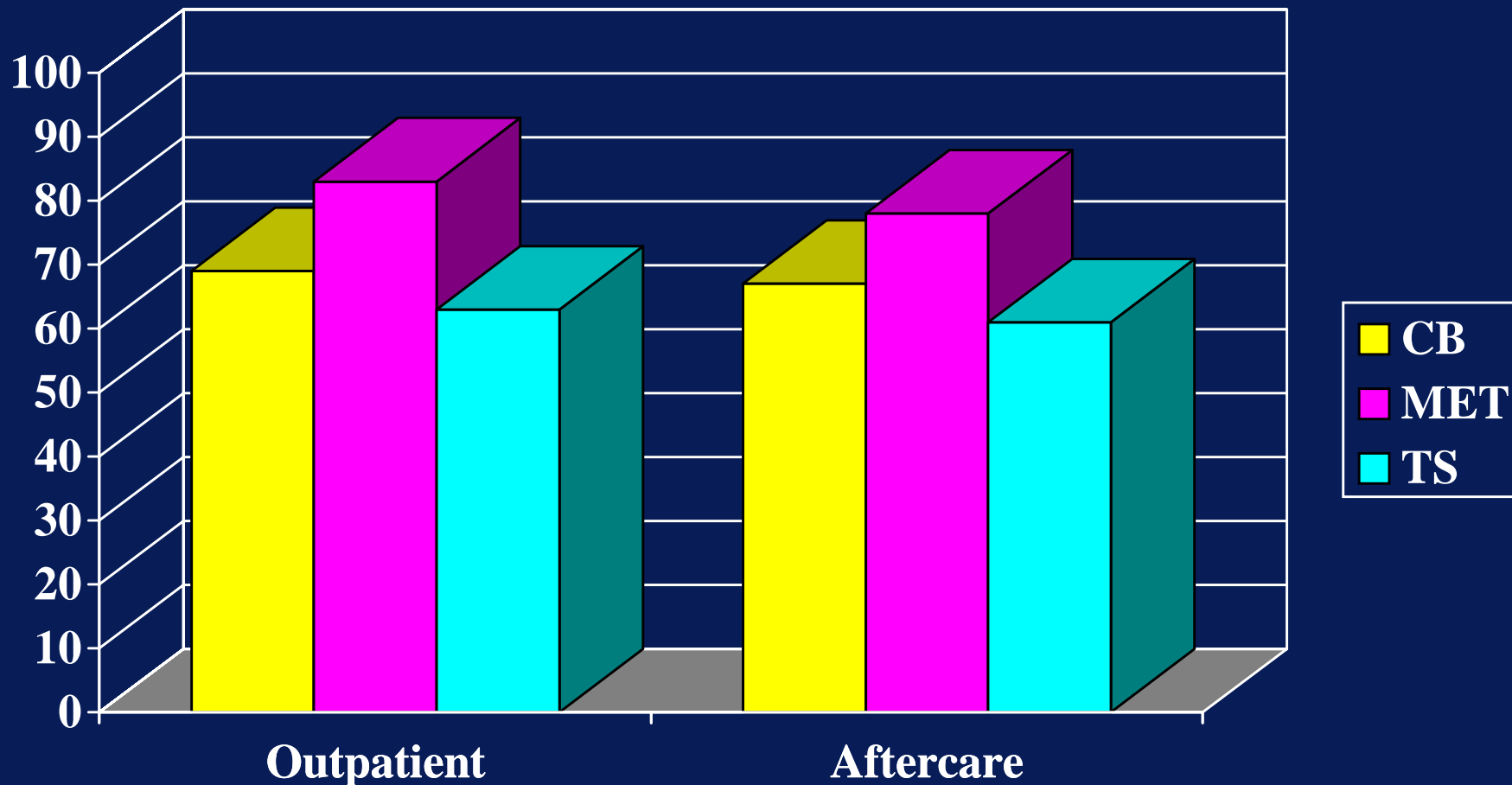
Preliminary Analyses

- 1. Treatment Compliance**
(Did they come?)
- 2. Treatment Discriminability**
(Did they receive what was intended?)
- 3. Research Compliance/ Validity**
(Did they, in sufficient numbers, tell us how they were (honestly) doing?)

Treatment Sessions Attended



Compliance in Project MATCH: Treatment Attendance Percent of Prescribed Sessions



Representative Items From Treatment Subscales MATCH Tape Rating Scale (MTRS)

Cognitive Behavioral Treatment (CBT)

Review previous task assignment

Assign practice exercises

Skill training

Review past high risk situations

Plan for future high risk situations

Distinguish between slips and relapses

Representative Items From Treatment Subscales MATCH Tape Rating Scale (MTRS)

Motivational Enhancement Therapy (MET)

Encourage commitment to change drinking

Clarify goals for treatment

Elicit self-motivational statements

Address patient ambivalence

Provide feedback on negative consequences
of drinking

Representative Items From Treatment Subscales MATCH Tape Rating Scale (MTRS)

Twelve Step Facilitation (TSF)

Review previous task assignment

Encourage AA involvement

Address client denial

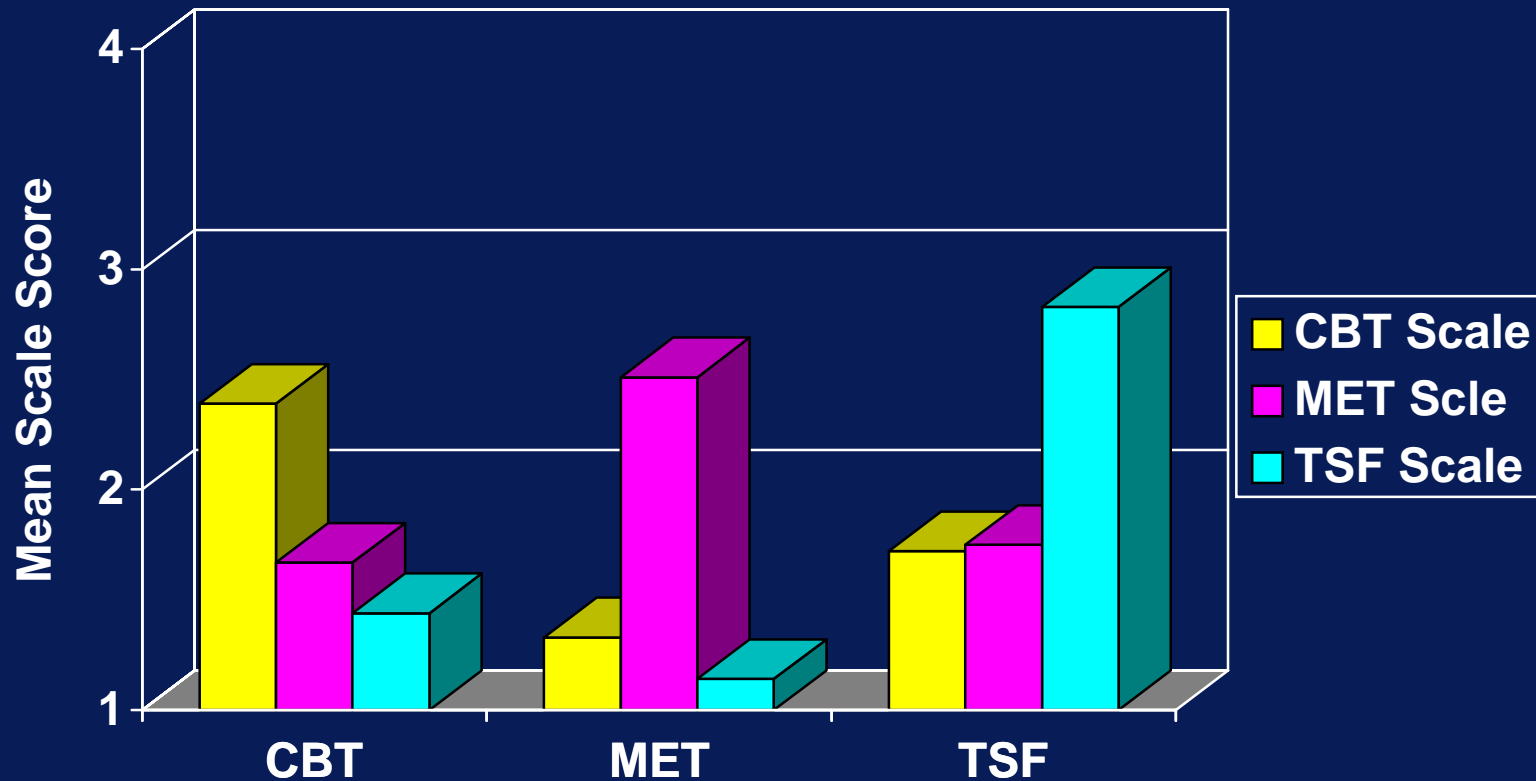
Discuss disease concept of alcoholism

Explain 12 Step Recovery

Invoke spirituality/Higher Power

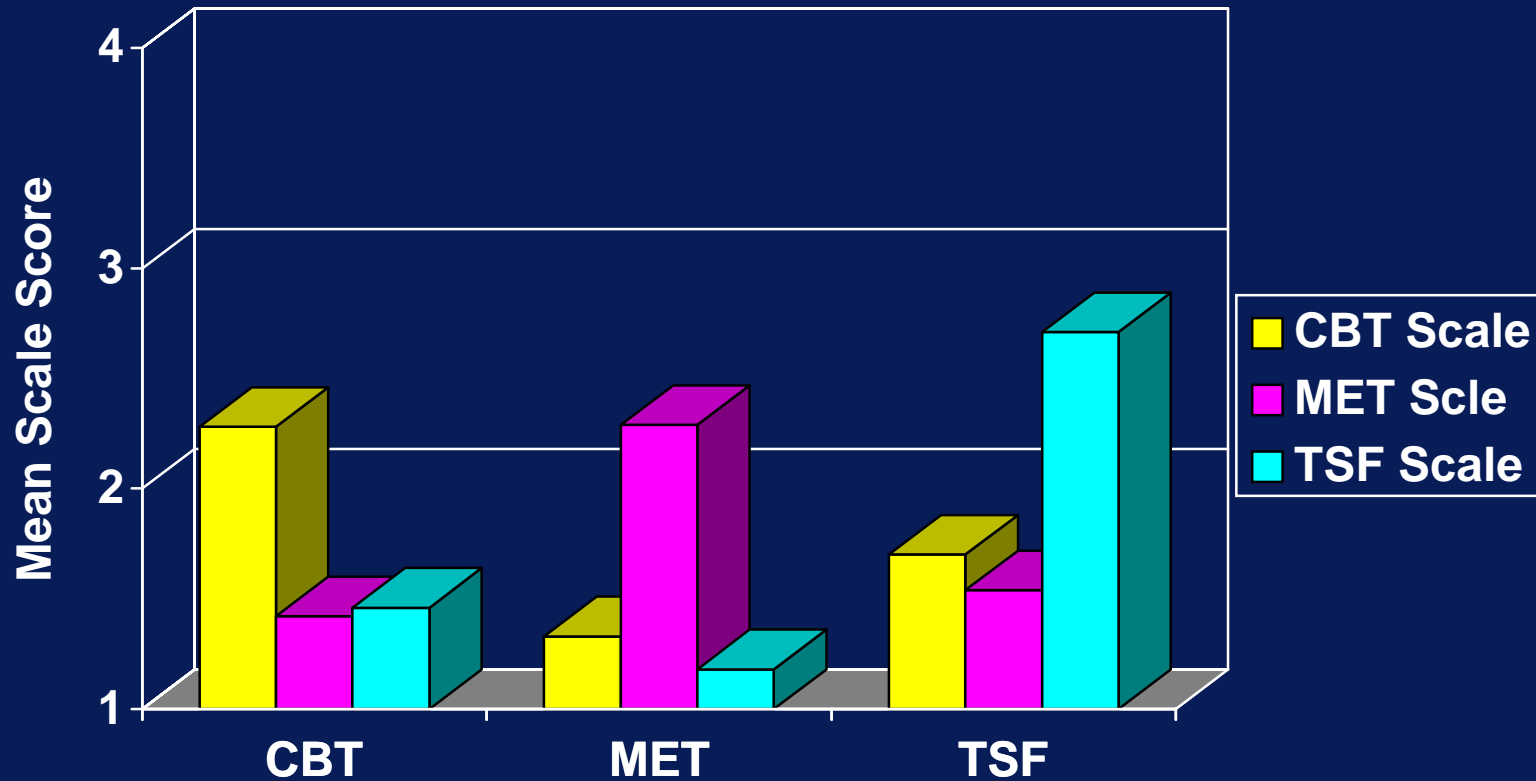
MATCH Tape Rating Scale

Outpatient Arm



MATCH Tape Rating Scale

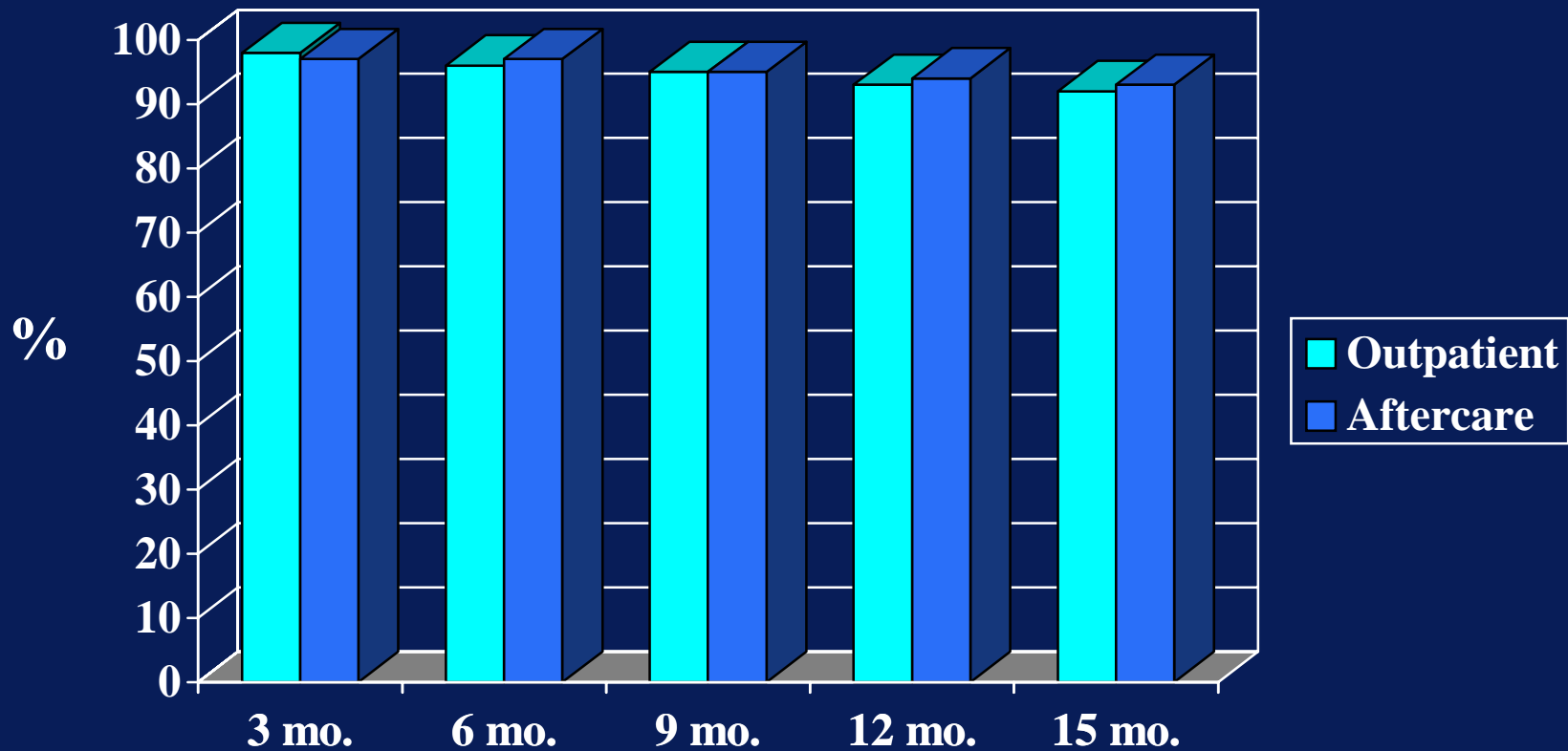
Aftercare Arm



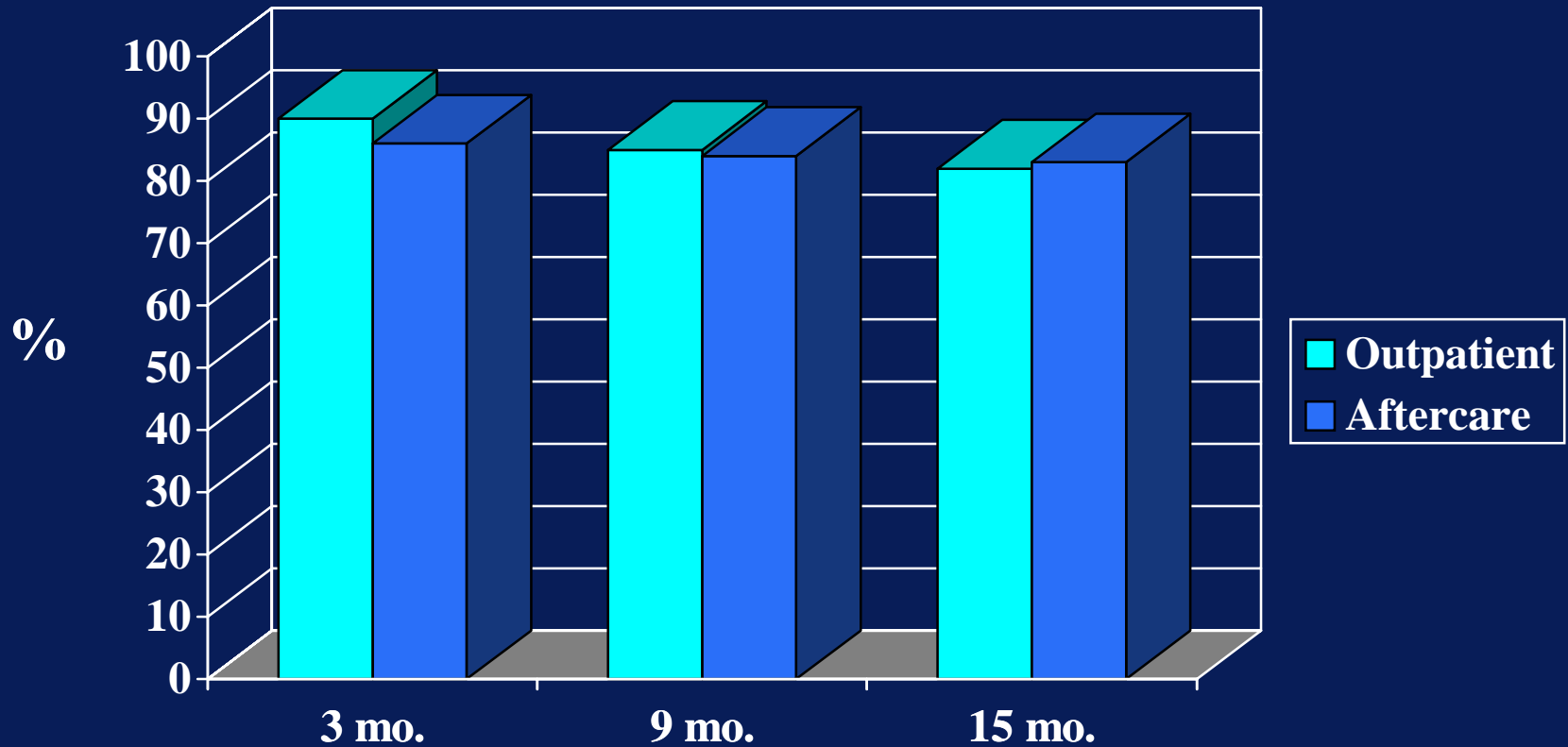
Conclusions Regarding Treatment Main Effects

- Treatment attendance was high across all three treatments with no evidence of any compliance bias
- Treatments were highly discriminable on tape rating measures

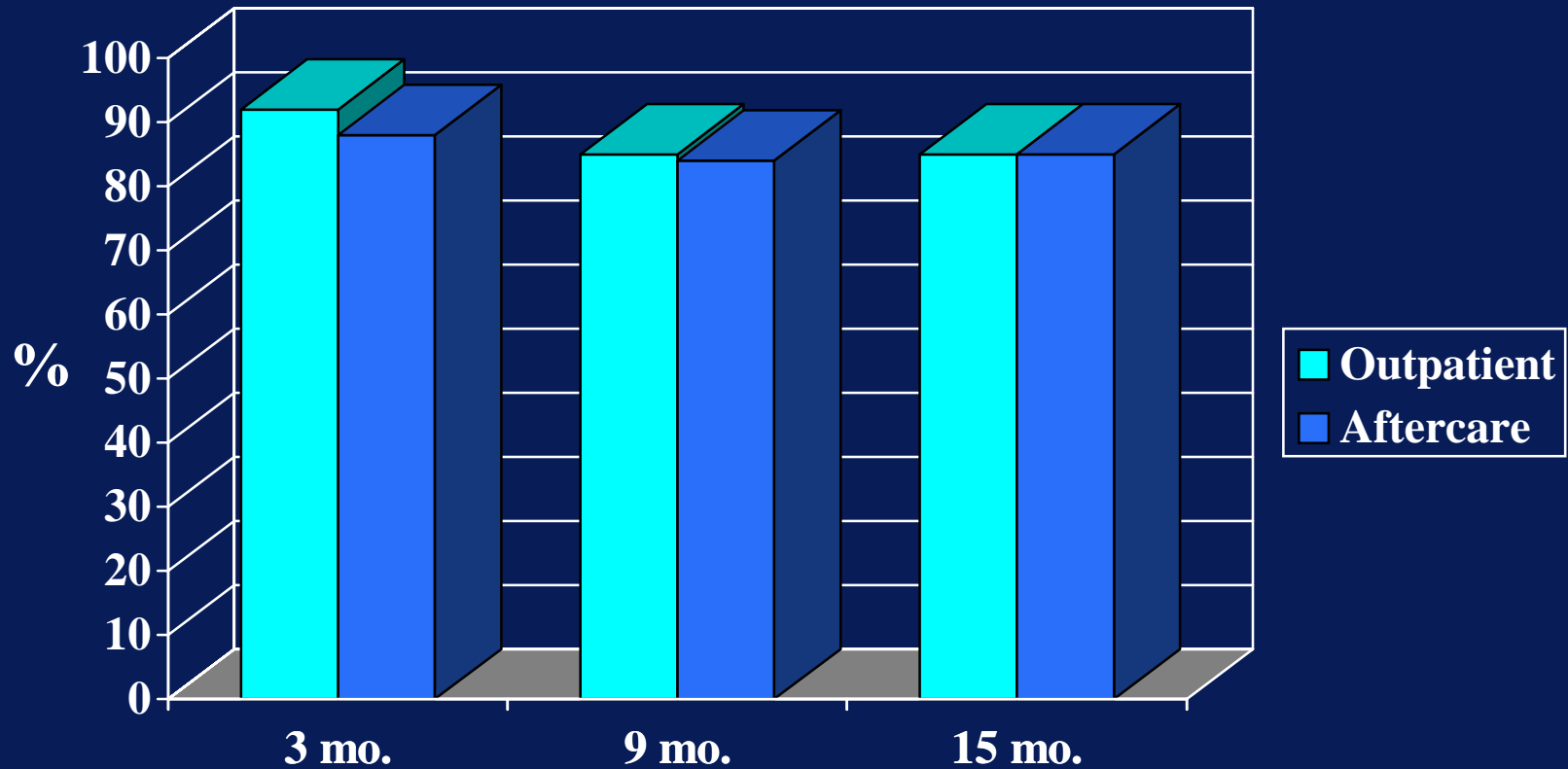
Research Compliance: Completeness Follow-up Attendance



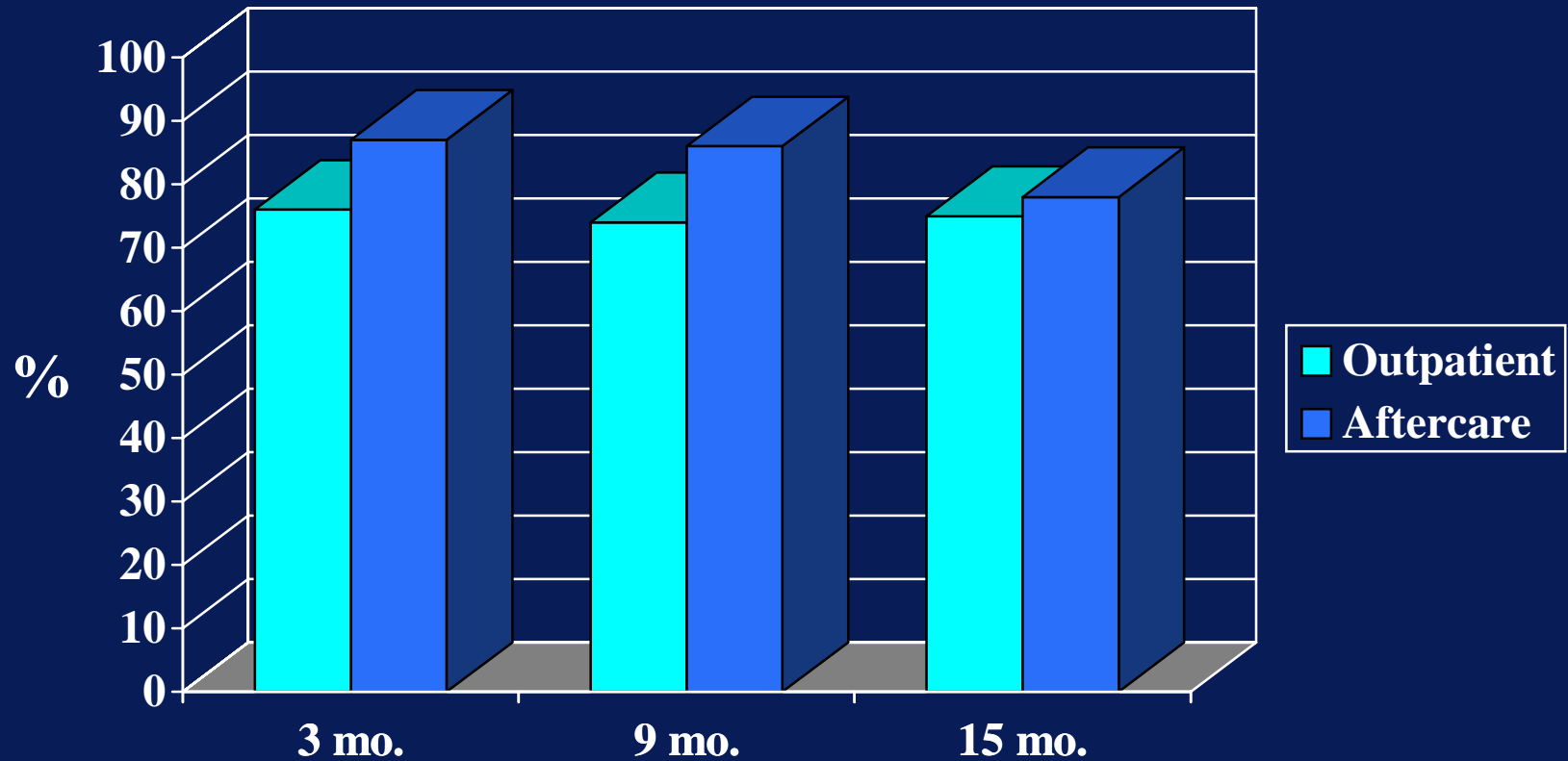
Research Compliance: Completeness Blood Provision



Research Compliance: Completeness Urine Provision



Research Compliance: Completeness Collateral Contacts



Validity of MATCH self-reported drinking data at 15 mo. follow-up

Correspondence Between Client and GGTP

		Client	
		Not Drinking	Drinking
GGTP	Negative	51.1%	19.8%
	Positive	12.9%	16.3%

Research Compliance: Accuracy Correspondence Between Client and Collateral

		Client	
		Not Drinking	Drinking
Collateral	Not Drinking	27.2%	11.6%
	Drinking	3.7%	57.5%

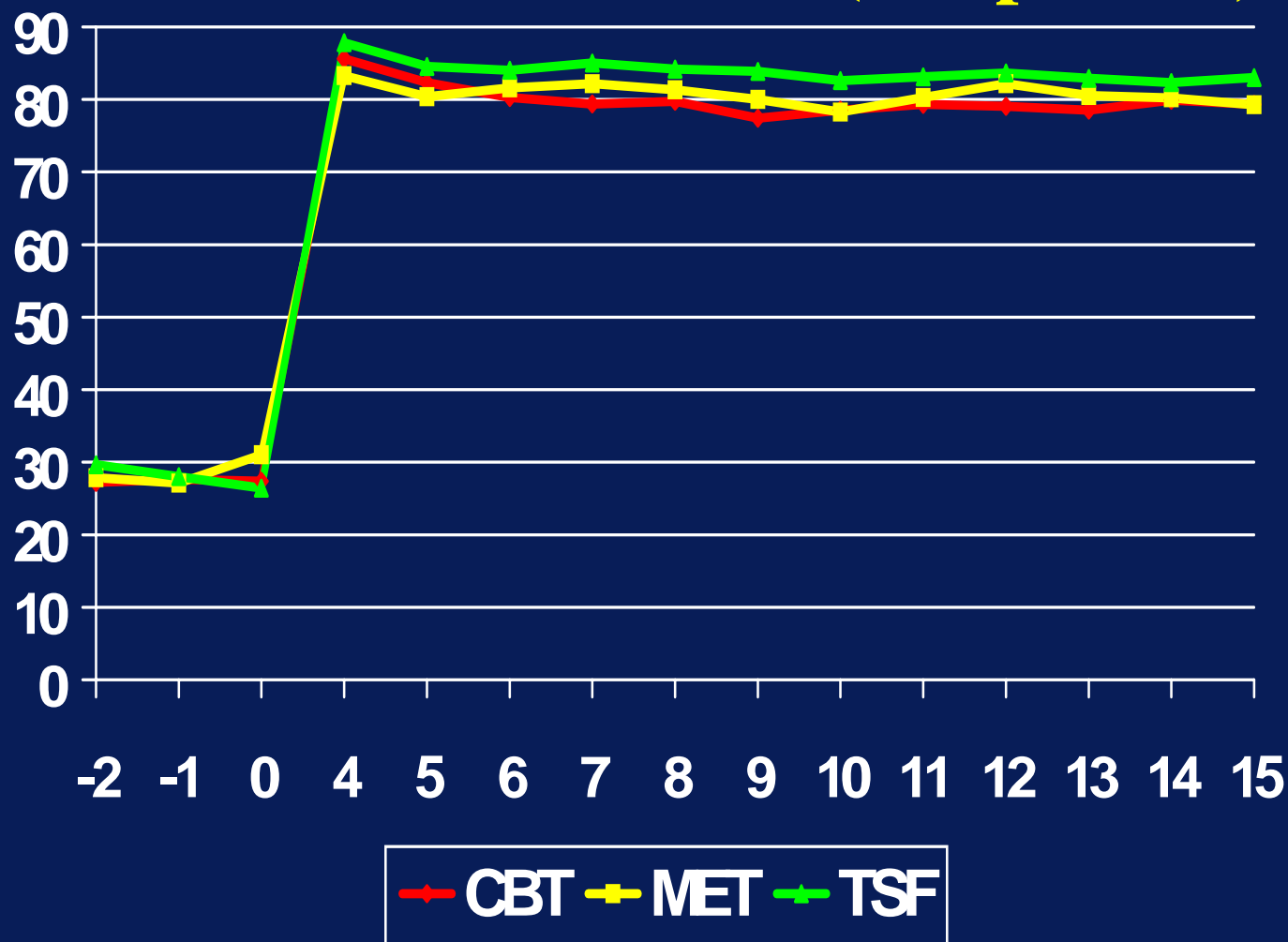
Results

(Main Effects)

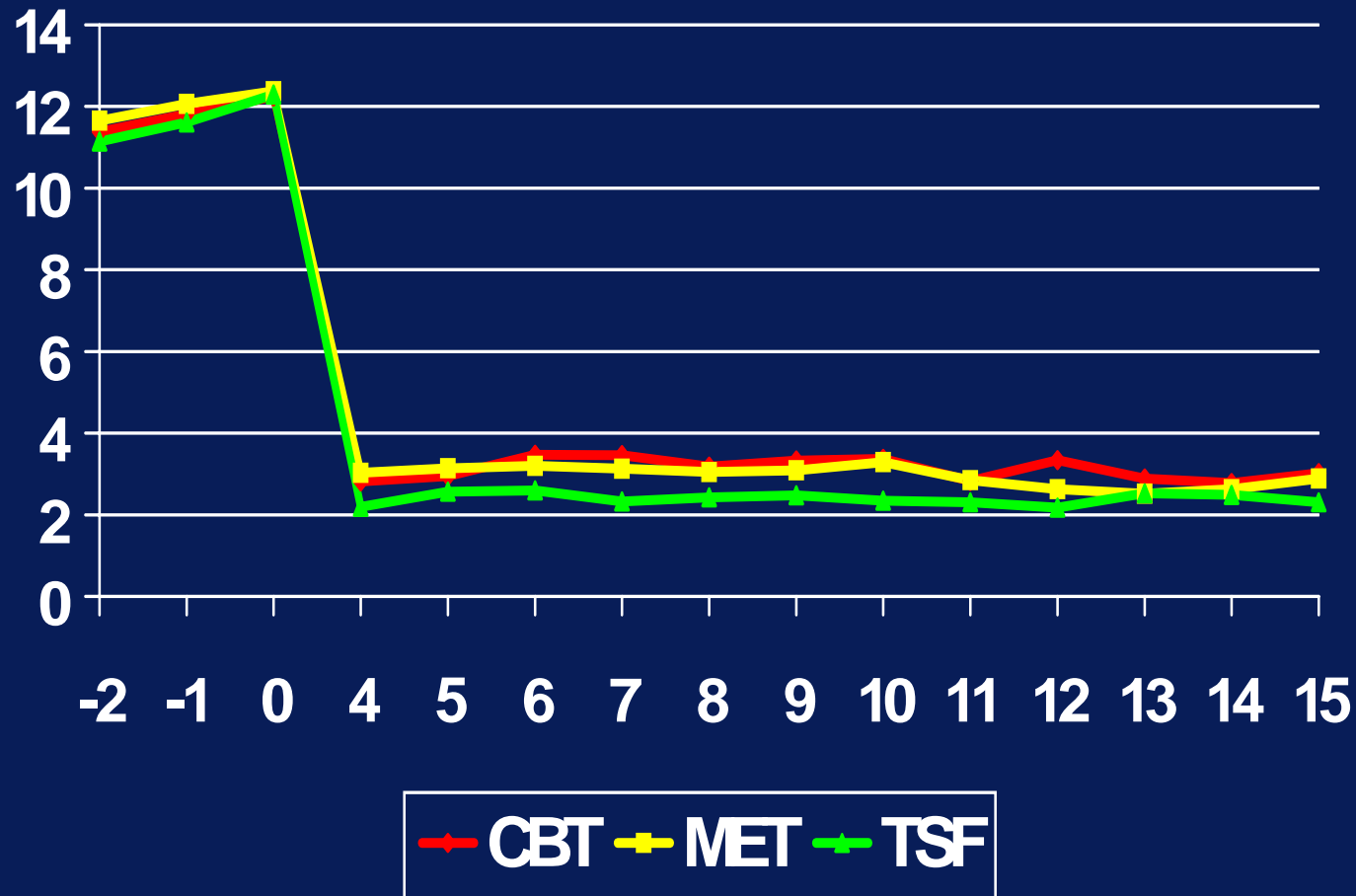
Major Analytic Challenges

- Effects varied over time
- Site by treatment interactions were present
- Effects varied somewhat by dependent variable
- Skewness of outcome measures

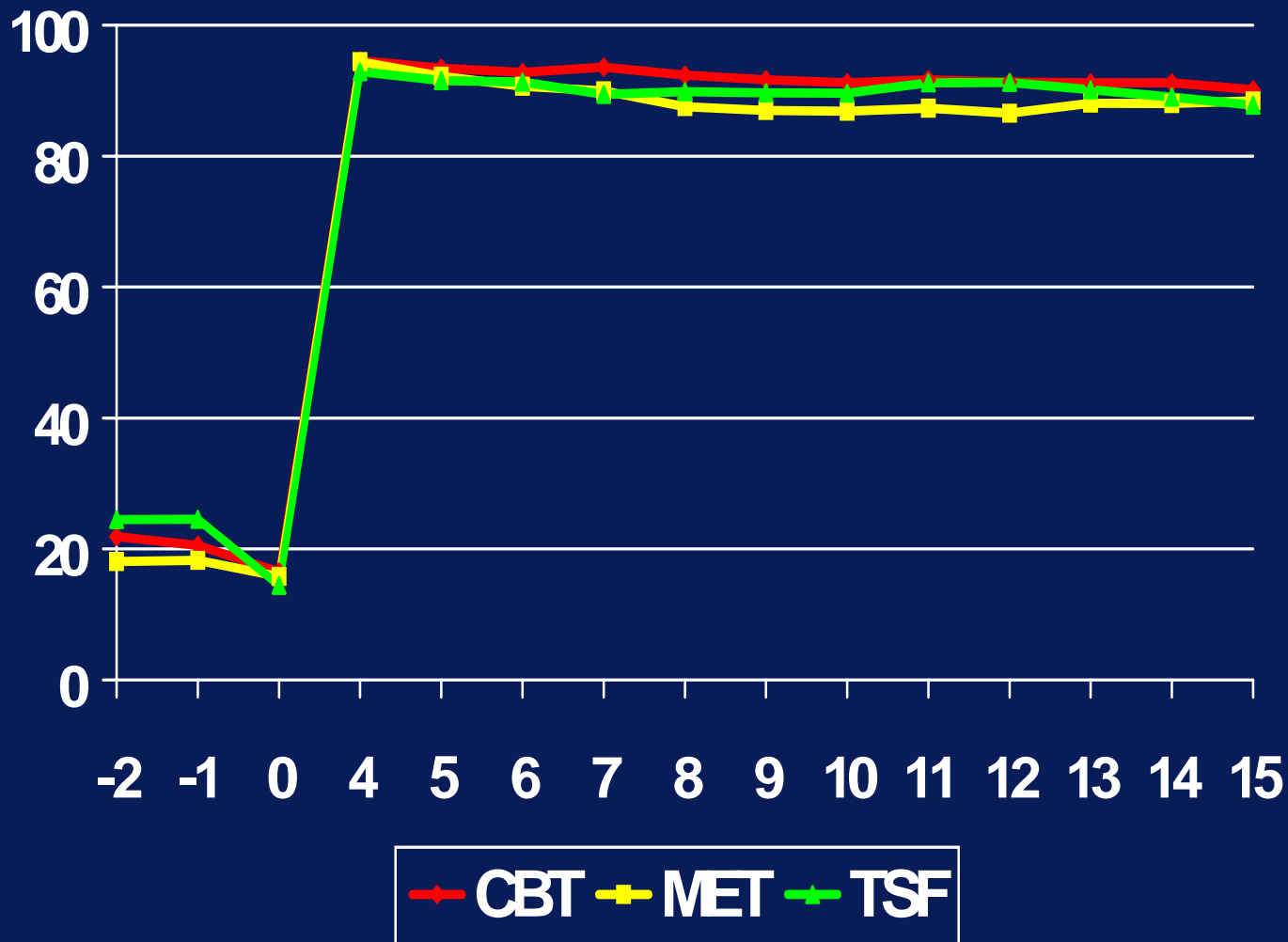
Mean Percent Days Abstinent as a Function of Time (Outpatient)



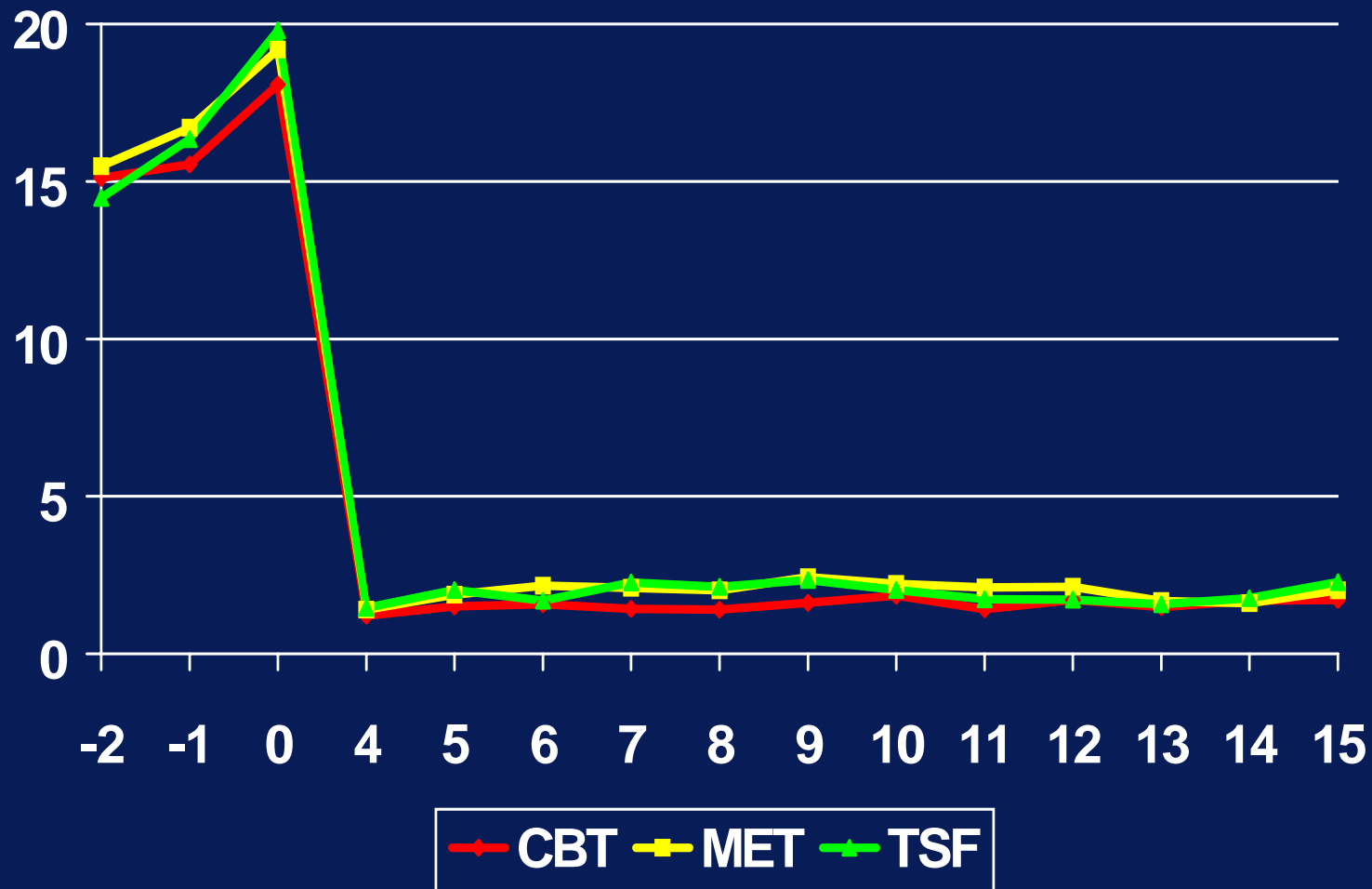
Mean Drinks per Drinking Day as a Function of Time (Outpatient)



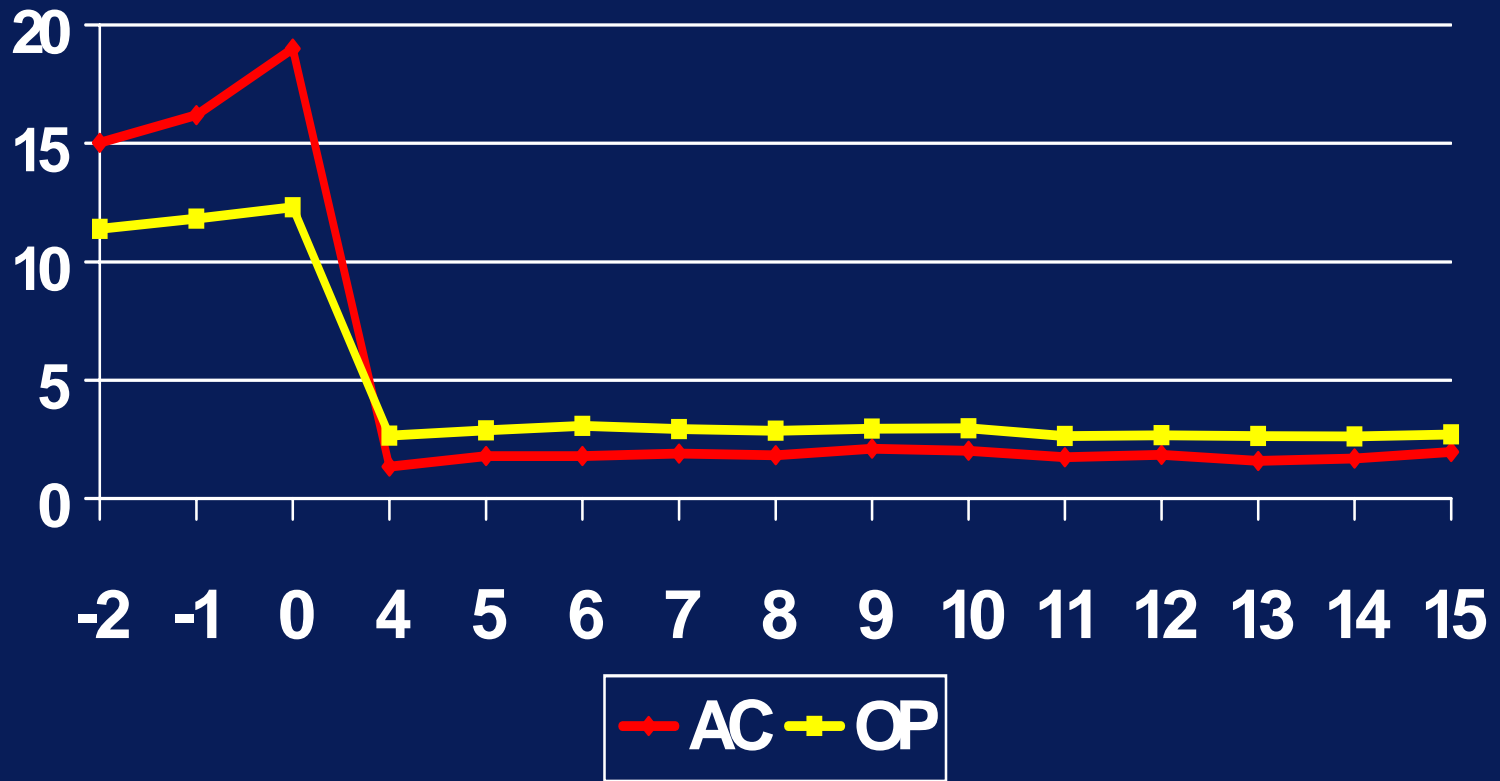
Mean Percent Days Abstinent as a Function of Time (Aftercare)



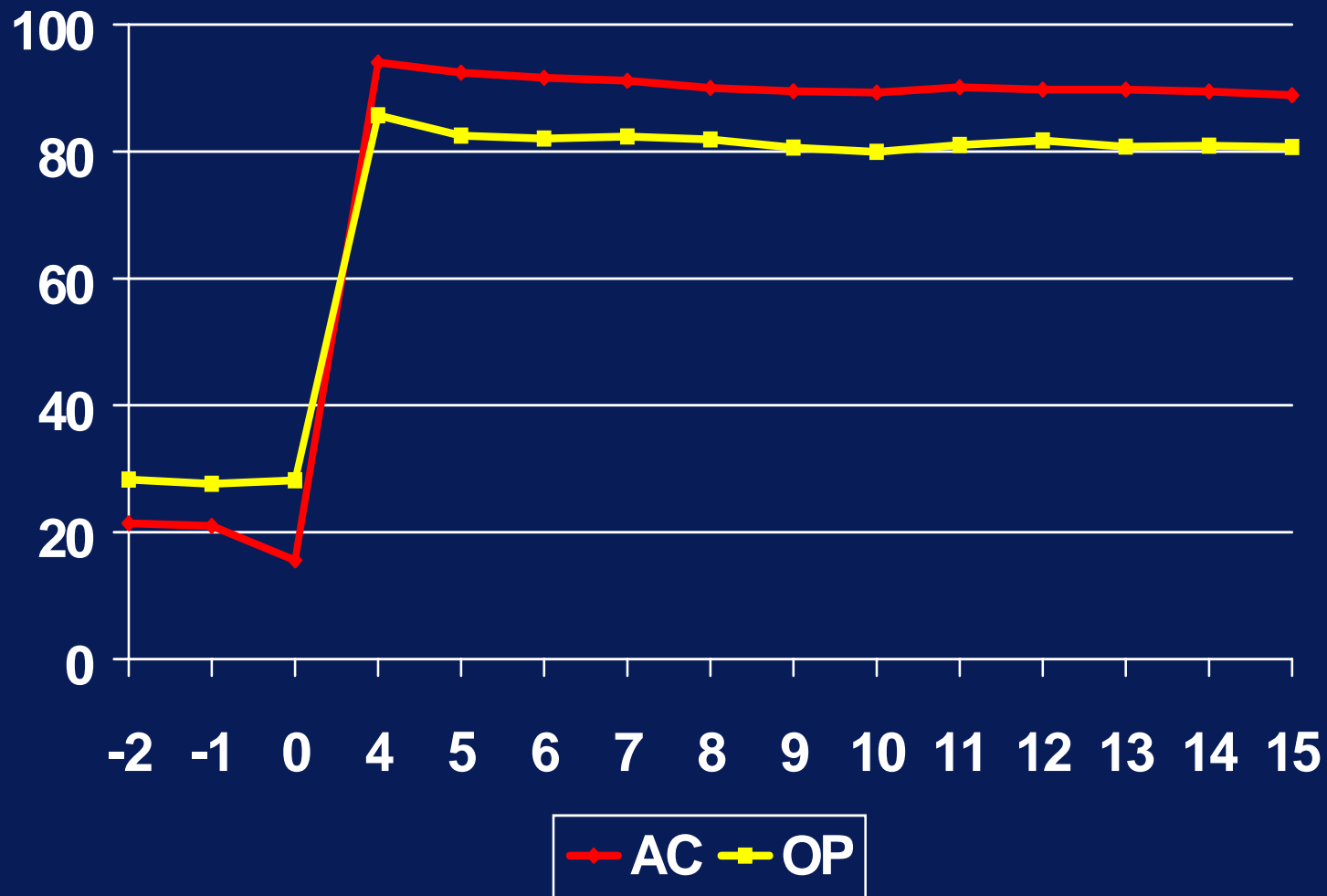
Mean Drinks per Drinking Day as a Function of Time (Aftercare)



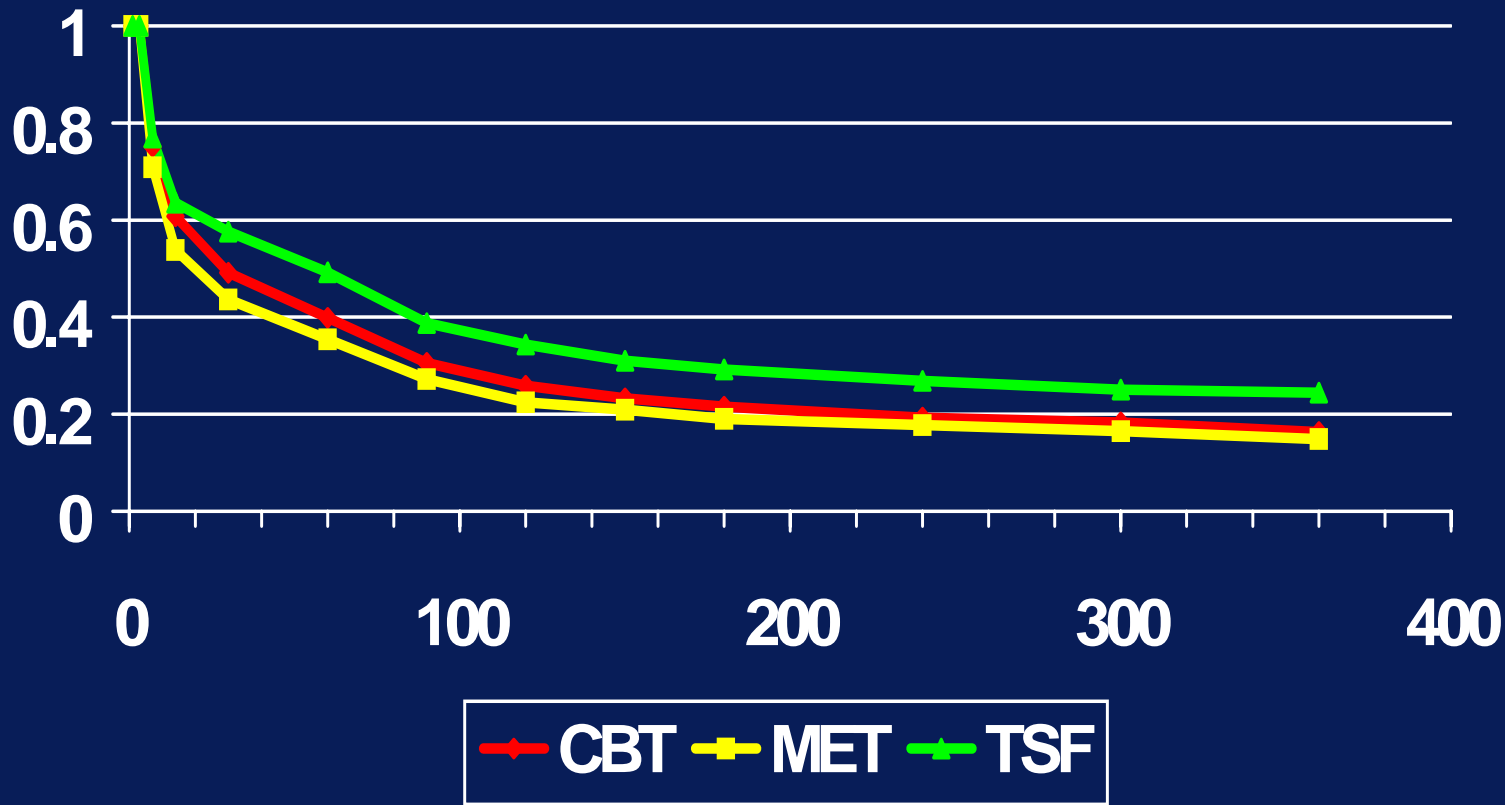
Mean Drinks per Drinking Day (Aftercare/Outpatient)



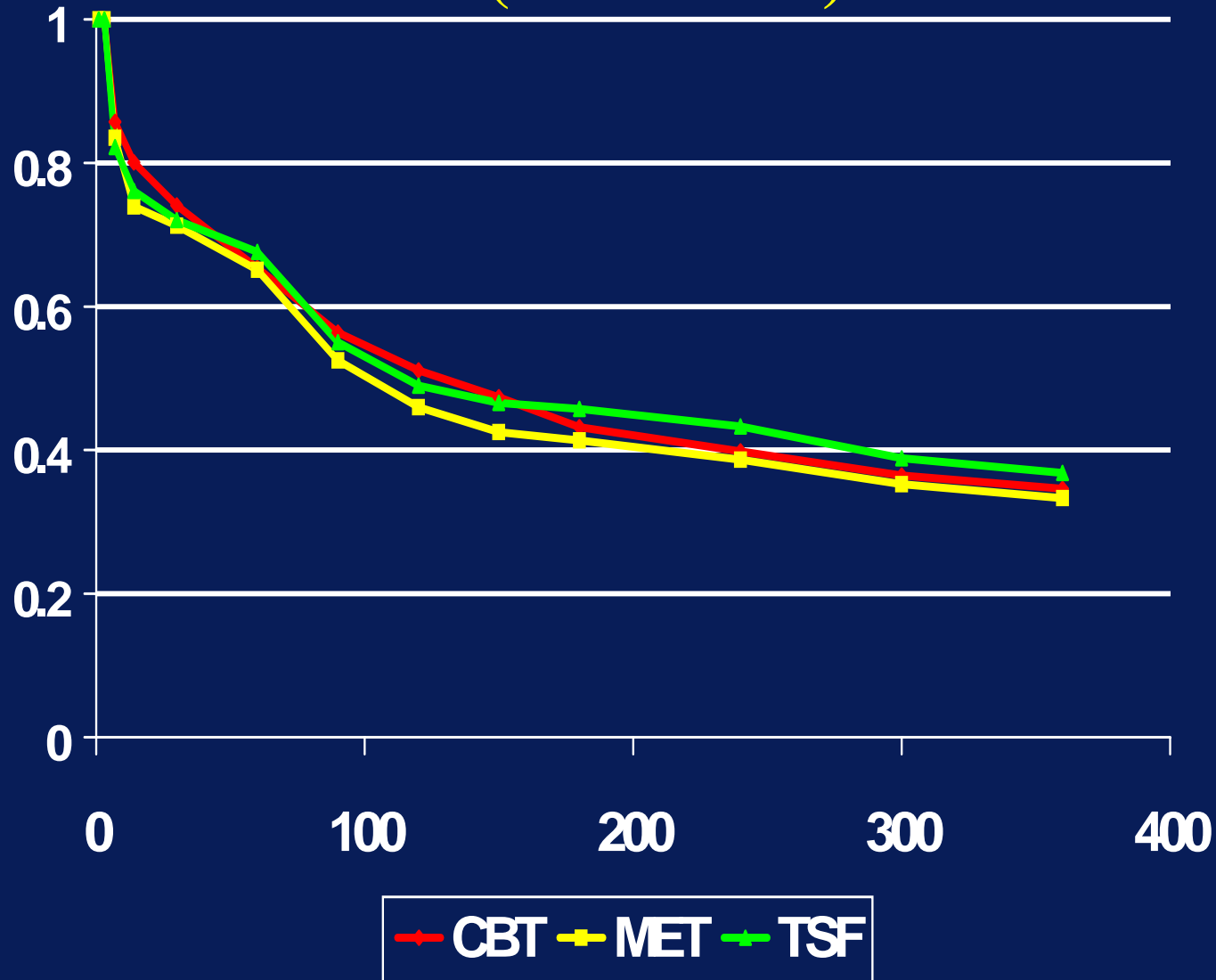
Mean Percent Days Abstinent (Aftercare/Outpatient)



Proportion of Patients Maintaining Total Abstinence as a Function of Time (Outpatient)



Proportion of Patients Maintaining Total Abstinence as a Function of Time (Aftercare)



Possible Reasons for Aftercare> Outpatient Differences

- Baseline differences between client groups
- Motivational self-selection of Aftercare clients
- Period of ensured abstinence for Aftercare clients
- Prior treatment received by Aftercare clients

Results

(Matching Effects)

Background

**21 Client-Characteristics Prospectively
Matched with Treatments**

**Each hypotheses tested 8 times, and
Outpatient an additional 4 times (3-year)**

**Idea of Strongest Support
(2 DV's/Both samples)**

Positive Matching Hypotheses

Anger with MET (o)

Social Network with TSF (o)

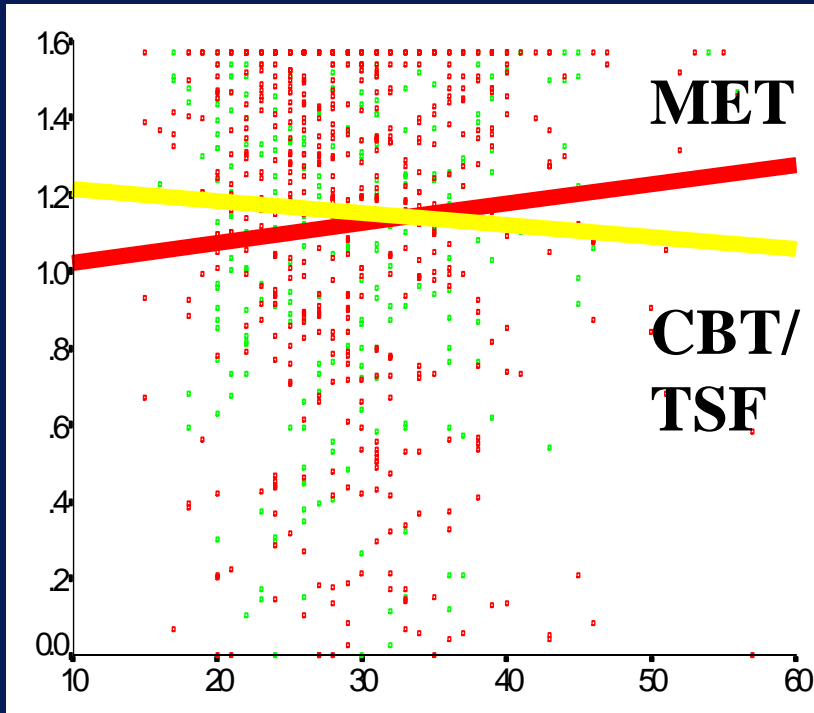
Alcohol Dependence with TSF (a)

Psychiatric Severity with CBT (o)

Anger: Waldron, Miller & Tonigan (2001)

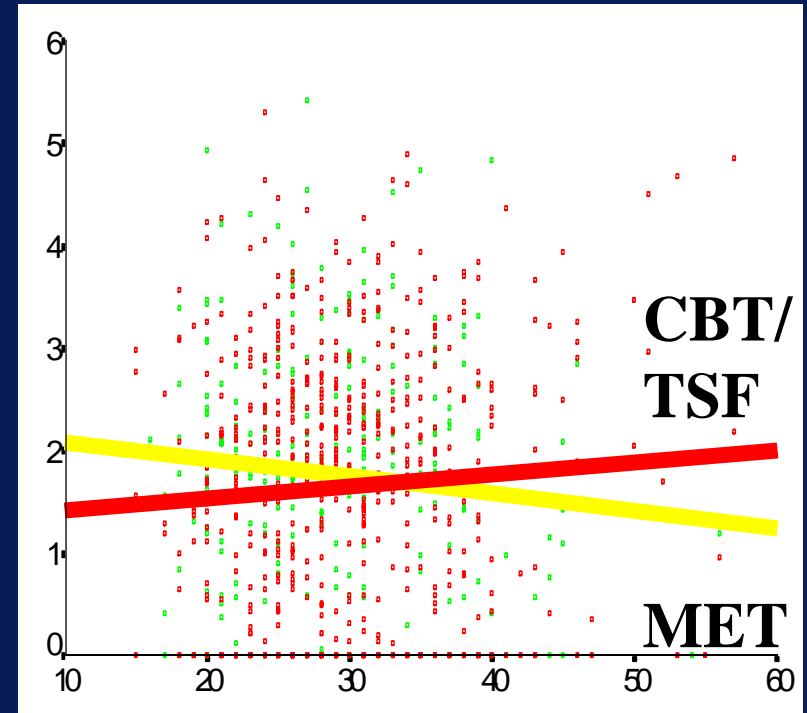
MET > CBT + TST

PDA Months 4-15



Client Anger

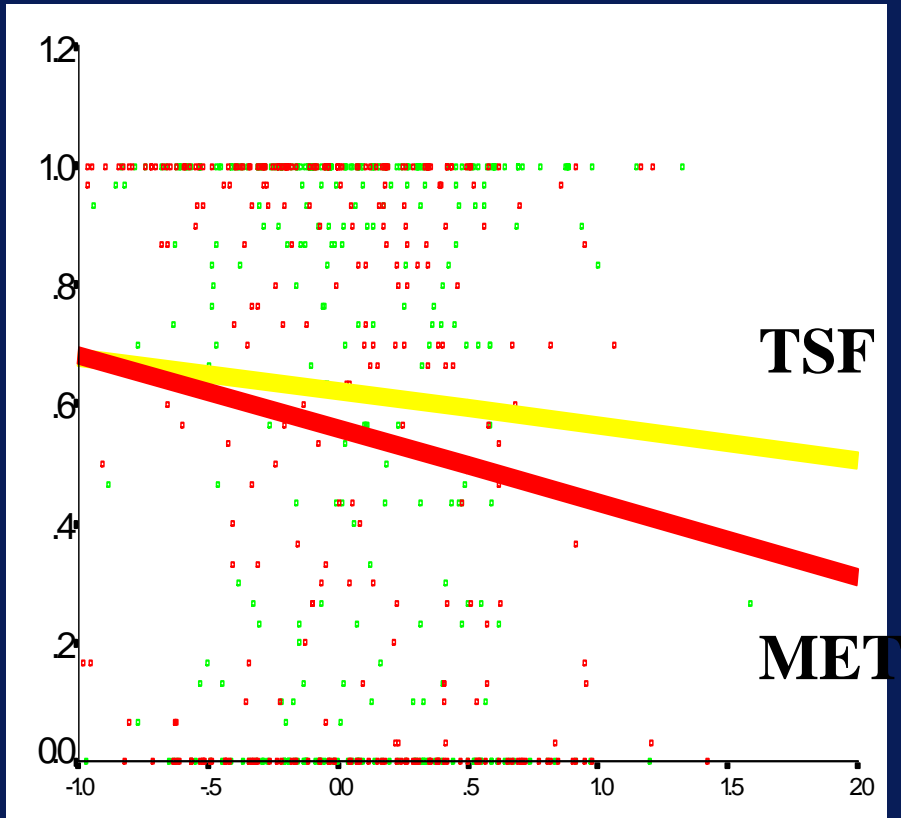
DDD Months 4-15



Client Anger

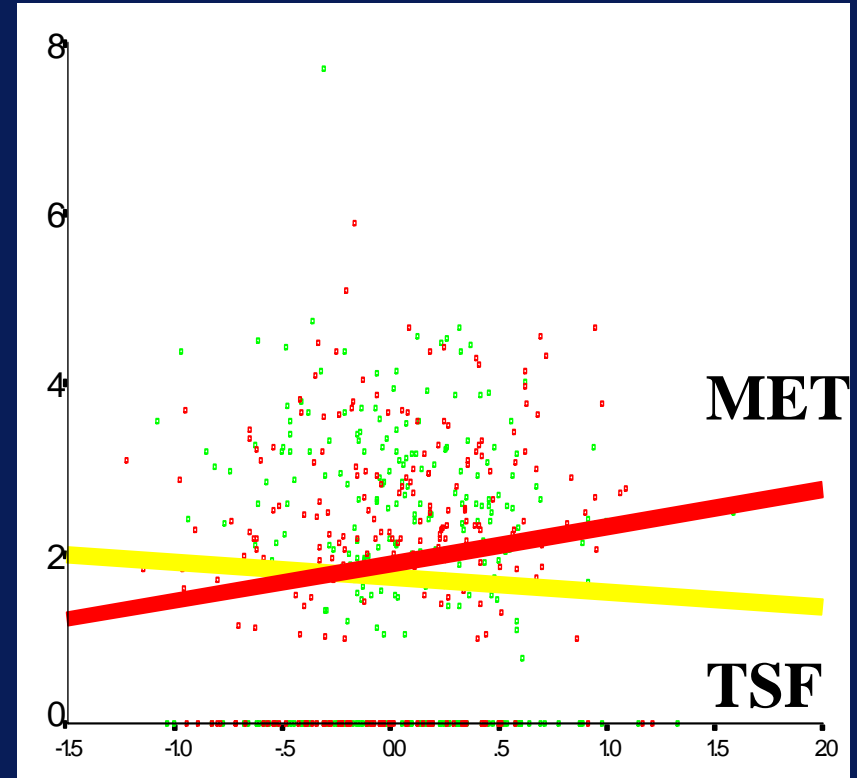
Social Support for Drinking: Longabaugh, et al. (2001). TSF > MET

PDA



Social Support for Drinking

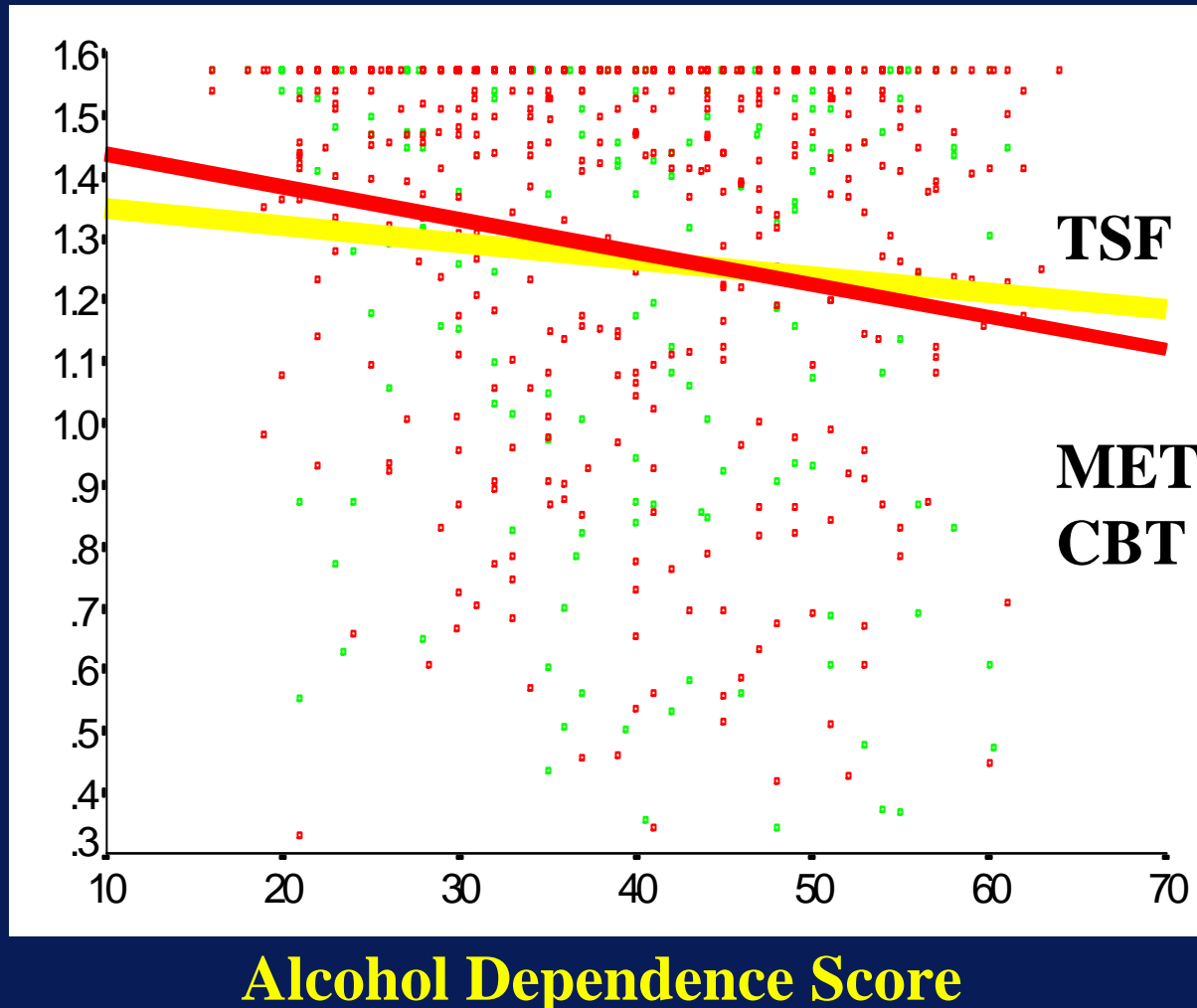
DDD



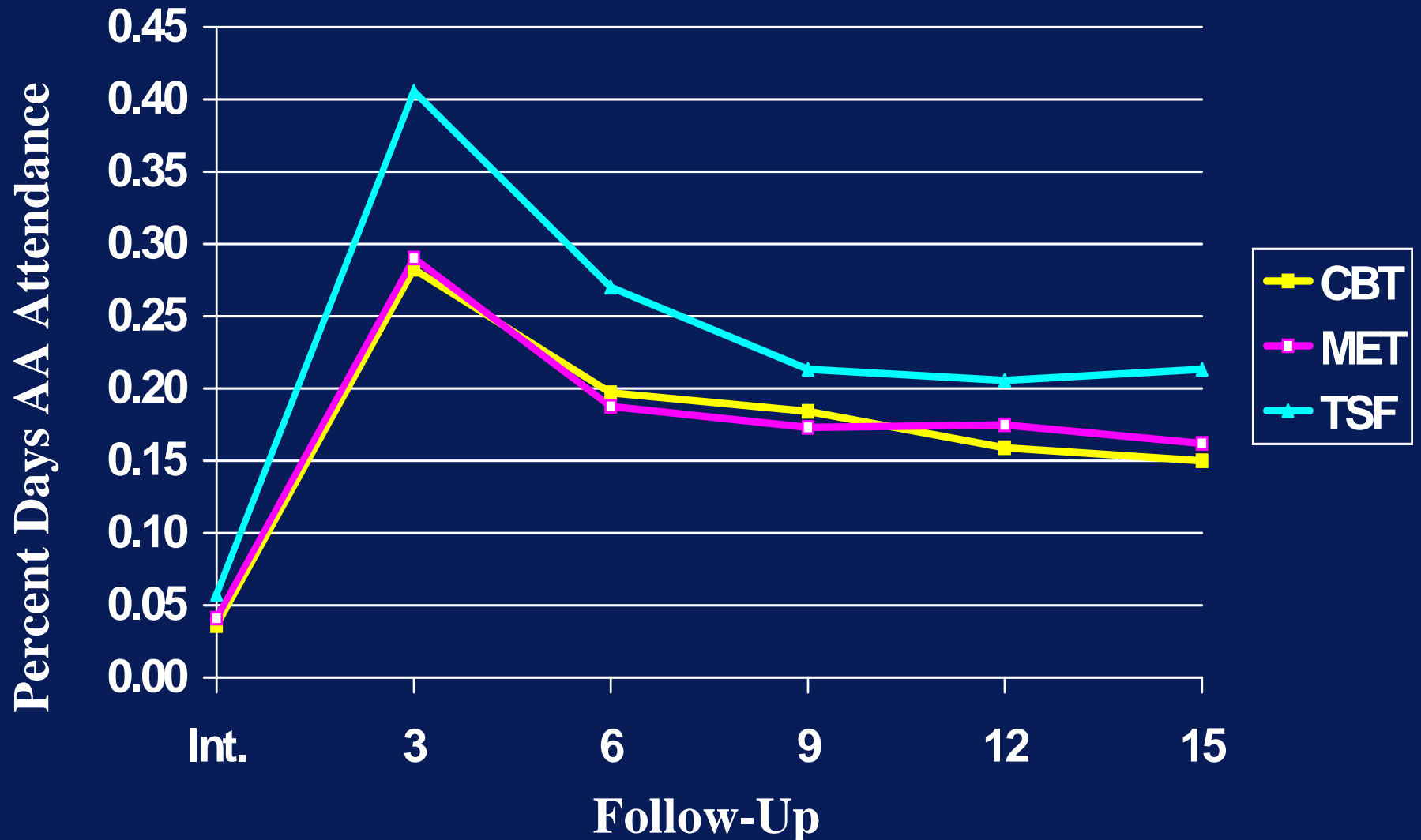
Social Support for Drinking

Alcohol Dependence: Cooney, Babor, & Litt (2001) TSF > MET+CBT

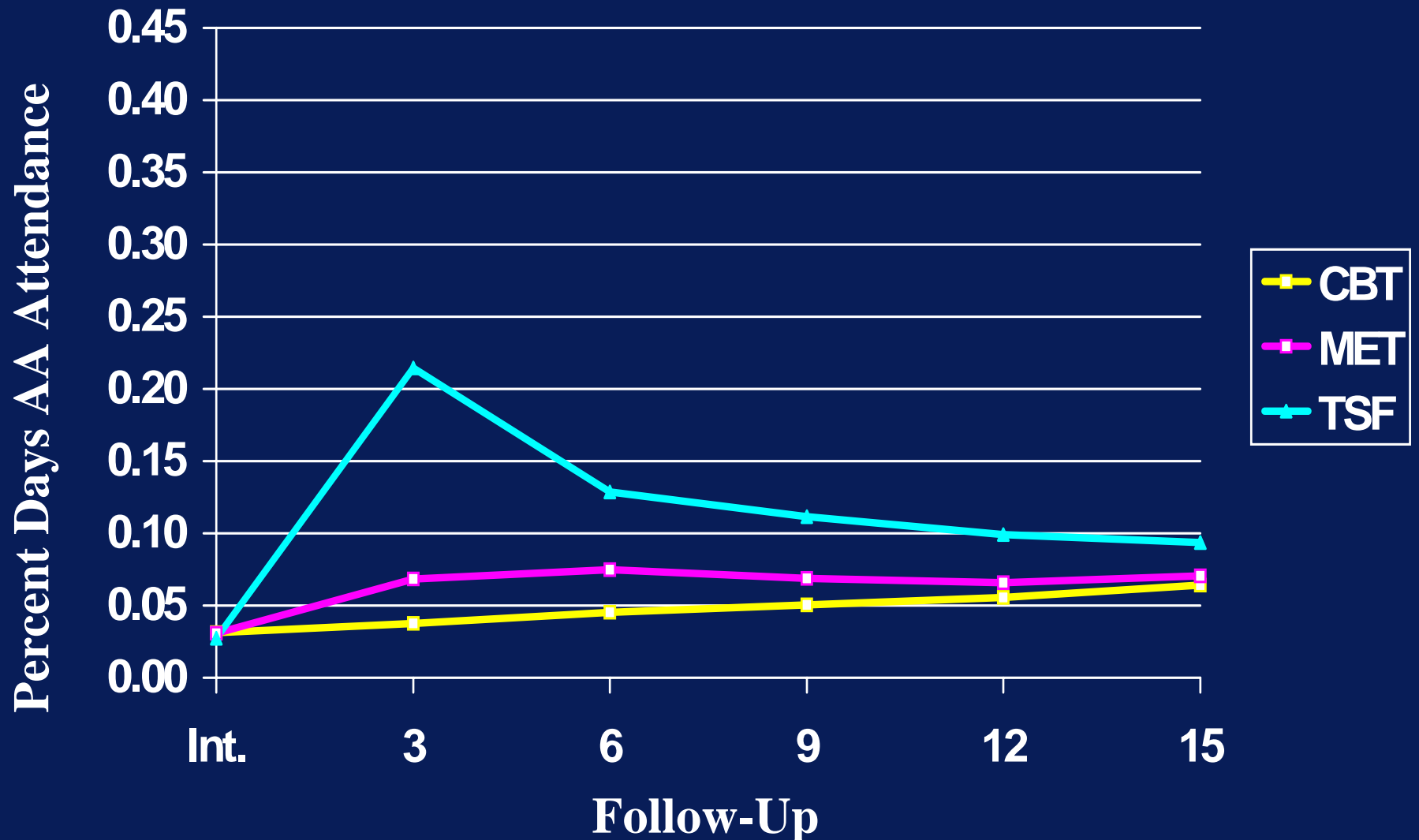
**PDA
Months
4-15**



Percent Days AA Meeting Attendance by Treatment Condition: Aftercare Arm



Percent Days AA Meeting Attendance by Treatment Condition: Outpatient Arm



AA Attendance and Client Functioning

MATCH Site	% Abstinence	DrInC	PIL
	r	r	r
Site 1	.21	-.07	.02
Site 2	.25	-.05	-.12
Site 3	.20	-.10	.04
Site 4	.24	-.12	-.01
Site 5	.26	-.14	.14
Site 6	.27	-.21	.05
Site 7	.43	-.19	.09
Site 8	.24	.06	.07
Site 9	.14	-.08	.08
Site 10	.17	.01	.23
Site 11	.33	.15	-.09
Mean weighted r	.25	-.09	.04
Chi Square Homogeneity test	p < .34	p < .43	p < .38

Conclusions
